Unlocking community electrification

Policy and funding reform for place-based energy initiatives

Summary

Australia's energy transition, with energy consumers at its core, can be significantly accelerated and better supported through place-based, real-world research and demonstration. The Electrify 2515 project, Australia's first community-led electrification pilot funded by ARENA, has successfully demonstrated the value of th approach.

Building on the success of this project, Rewiring Australia has spent the last 12 months consulting and partnering with local communities, industry, research and government stakeholders to investigate, design and pitch other potential accelerator projects.

Throughout this process, we have encountered the same structural barriers repeatedly. This paper documents those barriers and proposes reforms to address them. Our analysis identifies four areas where policy and funding settings are actively holding back community electrification:

1. **The funding gap:** community and household-scale electrification is systematically underfunded, and the primary federal funder (ARENA) has structural requirements that are misaligned with community-led initiatives.
2. **The consumer support gap:** trusted, independent household guidance is systematically underfunded and excluded from grant programs, despite being essential to turning policy into action.
3. **The regulatory gap:** the energy system's rules, pricing structures, and technical standards were designed for a centralised, supply-side grid and are increasingly a barrier to distributed community resources.
4. **The coordination gap:** household electrification policy is fragmented across agencies and jurisdictions, with no overarching strategy, no coordinating body, and programs that exclude the households most in need of support.

Rewiring Australia is actively working within current settings to advance community electrification projects, but the settings themselves need to change to unlock the scale and pace of transition that households and communities are ready for.

Why place-based initiatives matter

Realising the critical role households and communities can play in Australia's energy transition and emissions reduction targets has slowly gained traction in the last couple of years. However, the speed and scale required to electrify Australia's homes, businesses and cars, powering them with rooftop solar and batteries, and integrating them effectively into local energy grids, is falling short. The barriers are not technical but economic, social and regulatory.

Place-based community electrification projects can help to address these. They work at the neighbourhood or regional level, bringing together community groups, governments, installers, energy providers, network providers and researchers to support household upgrades in a coordinated, trusted, and locally relevant way.

Our research has determined there are 5 broad themes that represent key issues in electrification that provide the framework to design projects. Pilots and demonstration projects with cross-sector partnerships provide an opportunity to overcome common barriers by testing and exploring possible government policies, targeted funding, product development and/or education tools/resources.

Theme	Issue	Objective	Potential projects
Affordable & accessible	Not everyone can access the benefits of electrification	Make upfront costs of electrification more affordable and equitable for all households	Energy literacy, education & access; finance models; pathways for renters & landlords eg. portable rental products; culturally & linguistically diverse programs.
Context-specific solutions	Diverse housing stock requires more than a one-size-fits-all approach	Adapt electrification to suit diverse housing types, demographics and geographies	Strata projects, cold climate electrification, electrification for climate resilience in regional/remote regions, social housing upgrades
Simple & scalable	Electrification can be a complex process with multiple friction points	Streamline the electrification journey for faster, easier and broader uptake	Digital tools & automation, replicable community-led models, installer capacity building, marketplace platforms, advisory services.

Integrated & optimised	Distributed energy resources need to be integrated strategically to the energy system	Align household and community electrification with broader energy system needs	Load management demand response, VPPs, peer-to-peer trading, V2G
Aligned regulations & enabling environment	Fragmented government responsibility and outdated market design	Unlock policy, regulatory and market settings that accelerate equitable electrification	Rental standards, Electrical standards, DCP, NCC, Local tariffs

The value of place-based programs is well established. Experience from Electrify 2515, the Upgrade Accelerator (led by RACE for 2030, Rewiring Australia as partner), and community programs in cities and regions across Australia shows that coordinated local programs achieve higher participation rates, engage harder-to-reach households, generate trusted community knowledge, and produce the kind of granular and practical evidence that cannot be produced at a desk.

Interest in them is also high. Rewiring Australia received over 20 detailed Expressions of Interests from local groups wanting to initiate a demonstration project in their area, and a similar number of industry and research bodies interested in project delivery. The 2025 Upgrade Accelerator received 56 applications from councils and community groups across NSW, Victoria, WA, Queensland, and Tasmania. While the demand for place-based initiatives is strong and the benefits clear, structural challenges are restricting the opportunities that localised demonstration projects can bring.

Nearly all project ideas face similar challenges: insufficient and inappropriate funding, fragmented jurisdictions, regulatory gaps and few pathways for consumer support.

1. The funding gap

The current landscape

There is no dedicated funding stream in Australia for community and place-based electrification initiatives. What exists is a patchwork of programs, most of which are either too small, too narrowly scoped, or structured in ways that exclude community-led organisations or initiatives.

States and territories either have no funding or limited project funding for community-led energy projects that pale in comparison to larger energy project funding and don’t meet the scale needed to manage the household transition and adoption of

Consumer Energy Resources. For example, NSW Government's new Community Energy Action Plan is welcome but has a ceiling of $600,000 per community project[1]; VIC's Cheaper Home Electric Community Program is capped at just $180,000 per organisation[2]; ACT's Energy Innovation Fund is up to $300,000. In contrast, Victoria's Energy Innovation Fund allocates up to $2 million per project for industrial electrification from a $10 million pool.

In the private capital space, commercial energy retailers have the capacity and distribution reach to run community programs, but their vested interests are not always aligned with maximising consumer benefit or generating publicly available knowledge. Other corporate or impact investors that could potentially fund projects generally favour commercial entities with a larger risk profile.

The ARENA structural mismatch

The Electrify 2515 project paved the way for ARENA becoming the primary federal funder of community electrification demonstration projects, with Federal Energy and Climate Minister Chris Bowen directing ARENA to fund more community projects[3]. Yet there is a structural mismatch in ARENA's funding design.

ARENA's funding model was built for technology commercialisation: it requires applicants to secure co-investment from commercial partners and demonstrate a path to proprietary returns for those partners. This is an effective model for utility-scale renewables, new commercial and grid infrastructure. It is poorly suited to household and community electrification.

The consumer electrification market is already commercial, highly competitive, and low-margin. It is served by tens of thousands of small local installer businesses operating on word-of-mouth and relationship-based sales. There is little scope for a single business to capture enough of this market to justify funding a large demonstration project as a competitive investment. The knowledge generated by community programs, on what engagement approaches work, which households are hardest to reach, how installer supply chains respond to coordinated demand, and what grid impacts arise when a neighbourhood electrifies together, is genuinely public knowledge. Its value comes from replication, not exclusivity. Requiring community proponents to frame this as a commercial proposition distorts project design and systematically disadvantages community-led delivery models.

The application process itself creates a chicken-and-egg problem. ARENA expects industry and local government partners to be in place at the point of application. But those partnerships only crystallise through the co-design conversations that happen

[1] https://www.energy.nsw.gov.au/news/new-grants-boost-community-energy-action
[2] https://www.energy.vic.gov.au/grants/cheaper-home-electric-energy-program
[3] https://minister.dcceew.gov.au/bowen/media-releases/electrifying-more-homes-bring-down-bills-good

before an application is written. The result is that only highly resourced organisations with significant staff capacity can navigate the process. Community groups operating with volunteer labour cannot sustain multiple years of unpaid scoping work to underpin a formal application. Rewiring Australia has attempted to play a clearinghouse role but as a non-profit organisation we face similar resourcing constraints, yet there are few similar independent organisations able to fill this space.

Community energy business models are currently at an early stage of maturity: a small number of pioneering pilots have demonstrated proof of concept, but widespread deployment requires many more replications. Reaching that scale requires investment in shared business infrastructure, seed grants for organisations adopting proven models, and ongoing support for coordination and engagement. None of these are currently funded systematically.

Recommendation 1: Establish a dedicated community electrification fund.

The federal government should establish a dedicated funding stream for community and place-based electrification initiatives, separate from ARENA's commercialisation mandate. This fund should cover project concept development, community engagement and coordination, local delivery support, and evaluation as legitimate, fundable costs. The fund should be sized to reflect actual demand, with state and territory governments contributing matched funding to support regional programs.

Recommendation 2: Reform ARENA's assessment criteria for community programs.

ARENA should apply a public-benefit test alongside commercialisation when assessing both community electrification proposals and other proposals that impact households and communities. Where a project generates open, replicable knowledge for the sector rather than proprietary advantage for a proponent, ARENA should be prepared to fund the full cost of delivery. Co-funding requirements should be calibrated to the actual capacity of community organisations and small delivery businesses, not to the financial positions of large commercial partners.

Recommendation 3: Create a national seed grant and revolving loan fund for community programs.

A small-medium grants program and revolving loan fund should be established to enable community organisations, local governments, and small businesses to adopt proven community electrification delivery models without the overhead of a full ARENA application. This would support the replication and scaling of approaches demonstrated in pioneering pilots, reducing costs over time as delivery models are standardised.

2. The consumer support gap

What actually moves households

Experience from Electrify 2515 and the Upgrade Accelerator is consistent: rebates, loan products, and minimum standards are necessary but not sufficient. One-to-one support from a trusted, independent and knowledgeable person is what converts awareness into action, particularly for households that are unfamiliar with the technology, concerned about cost, or navigating a complex tenancy, strata, or housing situation.

This support is not currently funded by ARENA, the CEFC, or many state energy programs. Consumer engagement, community coordination, and household advisory services are treated as overhead or out of scope rather than as core program costs. The result is that community organisations running upgrade programs must fund this work from general operating budgets or rely on volunteer labour, which caps the reach and scale of every program they run and systematically excludes the households most likely to benefit from direct support. While we have started to see more investment at the state level for engagement, it is still inadequate to support the scale of the need as every household is navigating multiple decisions regarding home and car upgrades.

The 2025 Upgrade Accelerator, which supported ten councils and community groups through structured program design workshops and one-to-one mentoring, consistently found that participants had the motivation and community relationships to deliver effective programs. Their binding constraint was funding and coordination capacity, not knowledge or commitment. Community groups in Queensland, for example, were actively developing programs to serve low-income and rental households but faced the expiry of core organisational funding at the same time, with no state policy levers in place to support their work.

Independent guidance at scale

There is also an unmet need for independent, impartial consumer guidance at scale. The current information environment for households considering electrification is dominated by retailer marketing, installer quotes, and generic government websites. None of these provide the kind of trusted, interest-free advice that a household needs to navigate their specific situation, particularly if they rent, live in a strata building, have limited capital, or are making decisions about replacing a major appliance.

An independent Home Electrification Advisory Service, operating nationally and integrated with state and federal programs, would provide this function. Alternatively, funding of existing independent non-profit organisations to perform this function. Either option would not sell products or represent any commercial interest, rather, help

households understand their options, navigate available programs and finance, and connect with qualified local installers.

Recommendation 4: Fund consumer support and community coordination as core program costs.

Federal and state funding agencies should explicitly recognise consumer engagement, community coordination, and household advisory services as legitimate, fundable components of electrification programs, not overhead to be excluded. Grant guidelines should require that these activities are scoped and costed, and should not penalise applicants for including them. Intermediary organisations that coordinate across community groups, councils, and delivery partners should be funded for that coordination role.

Recommendation 5: Establish a national independent Home Electrification Advisory Service or Fund.

The federal government, through a potential Office of Electrification, should establish an independent household advisory service, free at point of use, accessible to all Australian households including renters, and structurally independent from energy retailers and appliance suppliers. This service should be integrated with the major state and federal rebate and finance programs so that households can access tailored, interest-free guidance and be connected directly to available support. Alternatively, this could be offered as a Fund, with independent non-profit consumer organisations funded to offer these important services.

3. The regulatory gap: unlocking local energy resources

A system designed for another era

The regulatory and technical infrastructure of the Australian energy system was designed for centralised generation and passive consumers. As household and community electrification programs work to activate solar, batteries, electric vehicles, and flexible loads at the neighbourhood level, they encounter regulatory limits that were never designed with them in mind.

Several of these regulatory barriers are now well documented. The following are among the most important for community-scale programs.

Network pricing

Current network cost recovery relies predominantly on volumetric (per kWh) charges. This worked when higher consumption correlated with higher incomes and greater ability to pay. As solar and battery adoption grows fastest among wealthier

homeowners, this assumption is breaking down. Low-income households, renters, and those who cannot access consumer energy resources are progressively bearing a larger share of network costs, not because they make greater demands on the network but because they lack the options to reduce their measured consumption. This trend actively undermines the financial case for community electrification programs targeting these groups.

Moving toward property-value-scaled fixed charges and meaningful dynamic pricing signals would better reflect actual network costs, protect lower-income households from bearing a growing share of the cost base, and preserve the investment case for batteries and flexible loads. Dynamic network pricing, done well, strengthens the case for community batteries and vehicle-to-grid participation by rewarding assets that genuinely reduce local peak demands rather than merely shifting costs.

Electrical standards and portable consumer energy resources

Australian electrical standards do not currently accommodate plug-in consumer energy resources. In Germany, small balcony solar systems can be purchased from mainstream retailers and plugged into a standard wall socket under a recognised safety framework. No equivalent pathway exists in Australia, making it impossible for renters and apartment residents to participate in the growing global market for portable solar panels, suitcase batteries, and plug-in bidirectional EV chargers; and for demonstration projects to test emerging technologies in real-world settings.

A safe, nationally consistent framework for plug-in devices up to 1.2kW, using certified inverters with anti-islanding protection, would enable renters and apartment residents to access these technologies without requiring electrician involvement, consistent with practice in comparable markets. For higher-power portable devices including batteries and bidirectional EV chargers, a dedicated outlet standard (using a protected IEC 60309-type connector on a dedicated circuit) would enable safe permanent installation while allowing the device itself to remain portable and move with the resident.

Neighbourhood batteries and local grid integration

Community electrification programs in the Illawarra and elsewhere have found that neighbourhood-scale batteries are viable in concept but frequently stalled in practice by slow and costly connection processes, unclear planning pathways for battery installations in residential settings, and the absence of standardised commercial frameworks for the network support services these batteries can provide.

Neighbourhood batteries play a particularly important role in dense urban settings where rooftop solar capacity is limited but local storage can absorb solar exports, reduce evening peaks, and defer or avoid network augmentation. Average distribution network utilisation remains low across most of Australia, suggesting substantial capacity

to absorb more distributed resources if connection processes and pricing signals support it. The economics of neighbourhood batteries improve significantly when dynamic operating envelopes allow them to be connected in locations where they provide congestion relief, and when standardised network support contracts provide a clear revenue stream for the services they deliver.

Smart meters and modern tariff access

Many of the most innovative retail offerings available in Australia, including time-of-use tariffs, Solar Sharer offers, virtual solar products, and vehicle-to-grid trials, as well as smart appliances that can be flexibly used, require smart meters and switchboards capable of supporting them. In the rental sector, where meters and switchboards are frequently old and landlords face no requirement to upgrade them, renters are locked out of the cheapest and most flexible energy products. For demonstration projects, the requirement of switchboard upgrades to test future-forward solutions can be a prohibitive additional cost. Smart meter installation is a prerequisite for renters to participate meaningfully in the clean energy transition, and should be treated as a baseline infrastructure requirement rather than an optional upgrade.

Recommendation 6: Reform network pricing to protect low-income households and reward genuine system contribution.

The AEMC should progress network pricing reform that moves toward property-value-scaled fixed charges, reducing the burden on households that cannot access consumer energy resources, and introduces meaningful dynamic pricing signals that reward batteries and flexible loads for genuinely reducing network peaks. The goal should be a pricing framework that strengthens the investment case for community batteries and household CER while ensuring equitable cost allocation across all consumers.

Recommendation 7: Develop national safety standards for plug-in consumer energy resources.

A national framework should be developed for plug-in consumer energy devices, enabling small-scale balcony solar, portable batteries, and bidirectional EV chargers to be connected safely to standard power points (for sub-1.2kW devices) or dedicated protected outlets (for higher-power devices). This framework should be developed by relevant national standards bodies in coordination across all jurisdictions, drawing on the well-established safety approaches in European and North American markets where these devices are already mainstream.

Recommendation 8: Streamline neighbourhood battery connections and establish standardised network support contracts.

Distribution networks, with government support, should develop faster and more permissive battery connection pathways for neighbourhood-scale storage, including dynamic operating envelopes that allow batteries to connect in congested locations, standardised commercial frameworks for network support services, and clear planning pathways that provide certainty and minimise delays for community battery projects.

Recommendation 9: Enable local energy pricing signals that reward community-scale distributed resources.

Networks and market bodies should develop grid pricing mechanisms that recognise the value of locally generated and stored energy, including flexible export pricing, local energy matching incentives, and dynamic network pricing linked to actual congestion and capacity utilisation. These signals are essential for making neighbourhood batteries, community solar, and vehicle-to-grid participation economically viable at scale, and for ensuring that community electrification programs can demonstrate genuine system benefits alongside household outcomes.

4. The coordination gap

A fragmented policy landscape

Household electrification policy is currently distributed across federal and state agencies, programs, and regulatory bodies with no overarching strategy, no shared targets, and no single body accountable for household-level outcomes. Community programs sit at the intersection of this fragmentation and experience its consequences directly. This is a problem for implementing effective accelerator projects, but ultimately it is a problem for household electrification at large.

For example, local councils are often the most motivated actors in the community electrification space, with the community relationships and local knowledge to run effective programs. But their powers are constrained. Councils in some jurisdictions have sought to prohibit gas connections in new developments and have faced legal challenges under state planning law. Some NSW Councils are creatively banning gas in new builds on health grounds but this is a convenient loophole rather than a clear pathway and it is not available to other states and territory councils, leaving councils exposed to costly disputes if they want to change their development protocols.

Gas connection and disconnection costs remain inconsistently regulated across jurisdictions. Households that want to leave the gas network face high exit costs that function as a financial disincentive, regardless of the long-term savings an all-electric home would provide. New gas connections are often still provided at subsidised cost to

developers, with the cost effectively transferred to future lot owners and remaining gas network customers.

Minimum energy standards for rental properties only exist in a few jurisdictions (VIC, ACT limited), precluding renters in most demonstration projects and home upgrades generally. In most states, landlords have no obligation to install efficient, electric appliances or even smart meters and switchboard upgrades, which means renters cannot access modern time-of-use tariffs, Solar Sharer offers, or other retail products that could substantially reduce their energy bills. The split incentive between landlords (who pay for upgrades) and renters (who pay the energy bills) remains the central structural problem for a third of Australian households.

In strata buildings, sustainability upgrades often require a special or unanimous resolution of the owners corporation, meaning a small minority of lot owners can block upgrades that would benefit everyone in the building. NSW has moved to a simple majority threshold for sustainability upgrades; other states have not followed.

With upfront costs to upgrade the key barrier for most households, even within organised partially-funded projects, inadequate federal finance offerings and a patchwork of rebates and subsidy offerings still inhibit participation and generation of meaningful project outcomes.

A national strategy and coordinating function

The range of barriers are symptoms of a policy environment in which household electrification has never been treated as a national priority with clear ownership, accountable institutions, and adequate funding. The supply side of the energy transition has a well-resourced institutional framework. The demand side, meaning the actual transition of 11 million households away from gas and fossil fuel vehicles, does not.

A dedicated Office of Electrification, funded by the Commonwealth but working actively with states, territories, and local governments, would provide the coordinating function that currently does not exist. Unlike supply-side energy policy, where market participants number in the hundreds, every household in Australia is a stakeholder of electrification policy. The machinery of government needs to be resourced accordingly. Rewiring Australia estimates this function would require in the range of $15 to $25 million over the forward estimates, though further design work is required to specify its scope and quantify its cost precisely.

> **Recommendation 10: Establish a national household electrification strategy and coordinating function.**
>
> The federal government should develop a national household electrification strategy with clear targets, accountable agencies, and coordination mechanisms across

federal, state, territory, and local government programs. A dedicated Office of Electrification, funded by the Commonwealth and working across jurisdictions, should be established to own and coordinate this strategy. This office should consolidate visibility of existing programs, identify gaps, facilitate funding mechanisms, and act as an authoritative resource for households and community organisations navigating the system.

Recommendation 11: Reform concessional finance to reach all households, not just mortgaged owners.

Household electrification finance should be restructured through an Electrify Everything Loan Scheme (EELS) model: deferred repayment, inflation-indexed, secured on property title at point of sale. This model does not require income assessment or mortgage security, making it accessible to low-income owners, asset-rich retirees, and investor landlords. A strata-specific variant (Strata Energy Upgrades Scheme) should apply the same logic to owners corporation special levies for shared building upgrades, enabling apartment residents to access energy upgrades without immediate financial burden.

Recommendation 12: Establish minimum standards for rentals, nationally.

All states and territories should adopt minimum rental standards requiring, at minimum, replacement of end-of-life gas hot water systems and space heaters with efficient electric alternatives, and mandatory installation of smart meters and switchboard upgrades to support modern energy tariffs. Federal financing to states and territories could be contingent on states adopting measures, and create a national baseline standard for rental properties.

Recommendation 13: Reform gas connection and disconnection cost allocation.

New gas connections should be charged on a full, upfront cost basis to the connecting party, removing the current subsidy that makes gas connections artificially attractive to developers at the expense of future lot owners and remaining network customers. Gas disconnection costs should be minimised through clear definitions, contestable services, and regulation that does not allow networks to use disconnection fees to recover lost revenue or discourage household exit.

Recommendation 14: Clarify and strengthen local government powers on new gas developments.

A nationally consistent framework should be developed clarifying local government powers over gas connections and energy standards in new developments, removing the legal uncertainty that currently exposes councils to costly planning disputes when they seek to act in the long-term interests of their communities.

Recommendation 15: Lower strata voting thresholds for sustainability upgrades, nationally.

All states and territories should require that owners corporations need only pass an ordinary resolution (simple majority) to approve sustainability upgrades, consistent with NSW. Objections on aesthetic grounds alone should not be sufficient to block an upgrade.

Principles for effective community electrification projects

Community electrification projects work when they are designed for the households that need the most support, not the ones easiest to reach. The following principles draw on what Rewiring Australia has learned from running and supporting programs across Australia. They are offered not as prescriptive requirements but as a framework for funders, governments, and program designers to assess whether their approaches are likely to deliver equitable, scalable outcomes.

1. **Start with community, not with technology.**

The most effective projects and programs are built around what households actually need, not around demonstrating a product or platform. Community members should be active participants in program design from the outset, not consulted after the key decisions have been made. This means co-design with residents, local organisations, and tradespeople before a project concept is finalised, not after funding has been secured.

2. **Reduce the emphasis on commercialisation as the primary test.**

Community electrification programs generate public goods: replicable models, open knowledge, and community trust. These are not commercial products, and they should not be required to be. Funding criteria that prioritise proprietary returns will consistently produce projects skewed toward commercial interests rather than consumer benefit. The right question is not whether the proponent can capture long-term profit but whether the approach can be replicated and scaled across the sector.

3. **Make finance accessible to the households that need it most.**

Capital access is a bottleneck at every level of community electrification: for individual households deciding whether to upgrade, for strata buildings managing shared costs

across owners in different financial positions, and for community organisations developing the projects themselves. Finance products must be designed for households without mortgage security, investor landlords with cashflow constraints, and community groups operating on limited budgets. Flexible, deferred-repayment models backed by government are not a niche solution: they are the design that makes electrification possible for the majority of households that most need to transition.

4. **Build and fund cross-sector partnerships from the start.**

No single organisation can deliver effective community electrification at scale. The combination of community trust (held by local organisations and councils), technical expertise (held by researchers and industry), delivery capability (held by installers and service providers), and consumer advocacy (held by independent organisations like Rewiring Australia) is what makes programs work. Funding should support the formation and operation of these partnerships, including paying for the coordination and relationship-building work that precedes formal project activity.

5. **Treat public knowledge as an explicit output.**

Community pilots generate knowledge about what works: which engagement approaches move households to action, how installer supply chains respond to coordinated local demand, what grid impacts arise, and how to design programs for different housing types and demographics. This knowledge is only useful if it is documented, shared, and made available to other communities and programs. Funders should require it as an output, not treat it as optional.

6. **Use pilots to identify and escalate regulatory barriers.**

Place-based programs consistently encounter policy and regulatory barriers that cannot be resolved at the project level. These include outdated electrical standards, pricing structures, and connection processes that stall neighbourhood battery projects. Programs should be designed to surface these barriers clearly and funders should treat the policy evidence they generate as a primary output alongside delivery outcomes.

About Rewiring Australia

Rewiring Australia is a non-profit research and advocacy organisation dedicated to representing the people, households, and communities in the energy system. We deliver practical progress by working with government, industry, and communities to electrify everything.

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